

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 7 (Canceled)

8. (Previously Presented) A method of calibrating a transmitter circuit having a first characteristic controllable by a first control signal and a second characteristic controllable by a second control signal, the method comprising:

defining a set of multiple signal values for the first control signal;

defining a set of multiple power values representing power in a signal transmitted by the transmitter;

setting the first control signal to a level corresponding to a signal value from the set of multiple first control signal values;

selecting a power value from the defined set of multiple power values;

adjusting the second control signal to cause the transmitter to transmit a signal with a power corresponding to the selected power value;

repeating the selecting and adjusting for each power value in the set of multiple power values; and

minimizing a power supply current drawn by an amplifier over a dynamic range of the transmitter through at least one of the defining of a set of multiple signal values, defining of a set of multiple power values, setting of the first control signal, selecting of the power value, adjusting of the second control signal, and repeating of the selecting and adjusting.

9. (Original) A method as claimed in claim 8, further comprising recording data representing the second control signal against the power in the transmitted signal.

10. (Original) A method as claimed in claim 8 or 9, further comprising repeating the setting, adjusting, selecting and repeating for each signal value from the set of multiple first control signal values.

11. (Previously Presented) A method as claimed in claim 9, further comprising repeating the setting, adjusting, selecting and repeating for each signal value from the set of multiple first control signal values, and recording the data representing the second control signal and the power in the transmitted signal against the signal value from the set of multiple first control signal values.

12. (Previously Presented) A method as claimed in claim 9, further comprising repeating the setting, adjusting, selecting and repeating for each signal value from the set of multiple first control signal values, wherein the data representing the second control signal and the power in the transmitted signal is stored in a separate list for each signal value from the set of multiple first control signal values.

13. (Original) A method as claimed in claim 12, wherein the data in each separate list is recorded as entries in a respective look-up table.

14. (Original) A method as claimed in claim 8 or 9, wherein the set of multiple signal values for the first control signal is defined by using previously created data representing transmitted signal power values against first control signal values.

15. (Previously Presented) A method as claimed in claim 14, wherein the previously created data is used by selecting a power value from the defined set of multiple power values and calculating a signal value for the first control signal.

16. (Previously Presented) A method as claimed in claim 8 or 9, wherein the transmitter circuit comprises a first amplifier and a second amplifier, and the first characteristic is a characteristic of the first amplifier and the second characteristic is a characteristic of the second amplifier.

17. (Original) A method as claimed in claim 16, wherein the first amplifier comprises a power amplifier and the characteristic controlled by the first control signal comprises supply current to the power amplifier.
18. (Previously Presented) A method as claimed in claim 16, wherein the second amplifier comprises a conditioning amplifier, and the characteristic controlled by the second control signal comprises the gain of the conditioning amplifier.
19. (Previously Presented) A method as claimed in claim 14, wherein the previously created data is created using a method of calibrating a transmitter circuit having a first characteristic controllable by a first control signal and a second characteristic controllable by a second control signal, the method comprising:
- defining a set of multiple signal values for the first control signal;
 - setting the first control signal to a level corresponding to a signal value from the set of multiple first control signal values;
 - adjusting the second control signal to cause the transmitter to operate in a desired manner;
 - measuring power in a signal transmitted by the transmitter while operating in the desired manner; and
 - repeating the setting, adjusting and measuring for each signal value in the set of multiple first control signal values,
- wherein the second control signal comprises a gain control signal.
20. (Original) A method as claimed in claim 19, further comprising:
- storing a set of starting values for the second control signal; and
 - using the set of starting values when adjusting the second control signal to cause the transmitter to transmit a signal with a power corresponding to the selected power value.

Claims 21 – 22 (Canceled)

23. (Currently Amended) ~~A transmitter as claimed in claim [[22]]~~ 21, A transmitter comprising:

a receiver for receiving power data specifying a power value;

an amplifier having a first characteristic controllable by a first control signal and a second characteristic controllable by a second control signal wherein the amplifier comprises a first amplifier and a second amplifier, and the first characteristic is a characteristic of the first amplifier and the second characteristic is a characteristic of the second amplifier;

a store for storing data representing power values, corresponding first control signal values and corresponding second control signal values wherein the store comprises a look-up table;

a controller coupled to the receiver and the store and responsive to the received power data for generating from the data stored in the store a first control signal for controlling the first characteristic and a second control signal for controlling the second characteristic, wherein the first control signal comprises a current control signal wherein;

the controller comprises an analog-to-digital converter coupled to the amplifiers;

the controller is arranged to apply the received power data to the look-up table;

the look-up table is arranged to respond to the application of received power data by supplying data to the analog-to-digital converter; and

the analog-to-digital converter is arranged to respond to the supplied data by outputting the first control signal to the first amplifier and the second control signal to the second amplifier.

24. (Original) A transmitter as claimed in claim 23, wherein the controller is arranged to output the first control signal values and the second control signal values directly to the analog-to-digital converter.

25. (Original) A transmitter as claimed in claim 23 or 24, wherein the controller comprises a processor for:

processing data from the store to produce data defining the first control signal and the second control signal; and

outputting the same to the analog-to-digital converter.

Claims 26-32. (Canceled)

33. (Previously Presented) A transmitter as claimed in any of claims 21, 23, or 24, wherein the data in the store is generated using a method of calibrating a transmitter circuit having a first characteristic controllable by a first control signal and a second characteristic controllable by a second control signal, the method comprising:

defining a set of multiple signal values for the first control signal;

defining a set of multiple power values representing power in a signal transmitted by the transmitter;

setting the first control signal to a level corresponding to a signal value from the set of multiple first control signal values;

selecting a power value from the defined set of multiple power values;

adjusting the second control signal to cause the transmitter to transmit a signal with a power corresponding to the selected power value; and

repeating the selecting and adjusting for each power value in the set of multiple power values,

wherein at least one of the defining of the set of multiple signal values, defining of the set of multiple power values, setting of the first control signal, selecting of the power value, adjusting of the second control signal, and repeating of the selecting and adjusting minimizes a power supply current drawn by an amplifier over a dynamic range of the transmitter.

34. (New) A computer readable memory comprising a set of instructions for calibrating a transmitter circuit having a first characteristic controllable by a first control signal and a second characteristic controllable by a second control signal, comprising:

defining a set of multiple signal values for the first control signal;

defining a set of multiple power values representing power in a signal transmitted by the transmitter;

setting the first control signal to a level corresponding to a signal value from the set of multiple first control signal values;

- selecting a power value from the defined set of multiple power values;
- adjusting the second control signal to cause the transmitter to transmit a signal with a power corresponding to the selected power value;
- repeating the selecting and adjusting for each power value in the set of multiple power values; and
- minimizing a power supply current drawn by an amplifier over a dynamic range of the transmitter through at least one of the defining of a set of multiple signal values, defining of a set of multiple power values, setting of the first control signal, selecting of the power value, adjusting of the second control signal, and repeating of the selecting and adjusting.

35. (New) A transmitter having a first characteristic controllable by a first control signal and a second characteristic controllable by a second control signal, comprising:

- means for defining a set of multiple signal values for the first control signal;
- means for defining a set of multiple power values representing power in a signal transmitted by the transmitter;
- means for setting the first control signal to a level corresponding to a signal value from the set of multiple first control signal values;
- means for selecting a power value from the defined set of multiple power values;
- means for adjusting the second control signal to cause the transmitter to transmit a signal with a power corresponding to the selected power value;
- means for repeating the selecting and adjusting for each power value in the set of multiple power values; and
- means for minimizing a power supply current drawn by an amplifier over a dynamic range of the transmitter through at least one of the defining of a set of multiple signal values, defining of a set of multiple power values, setting of the first control signal, selecting of the power value, adjusting of the second control signal, and repeating of the selecting and adjusting.